

REMARKS

The July 1, 2009 Office Action has been carefully studied and considered. Applicant respectfully submits that all claims are patentable based on the amendments and remarks made herein. Action to such affect is respectfully requested.

Claims 1, 13 and 20 are amended herein to recite that the claimed method steps are performed at a mobile station. Claim 36 is similarly amended to recite that the claimed method steps are performed at a radio base station. Accordingly, all pending method claims are tied to a particular machine, i.e. a mobile station for claims 1, 13 and 20 and a radio base station for claim 36. Thus, all §101 claim rejections should now be moot.

Claim 1 is further amended herein to include the limitations of allowable dependent claim 9. Independent claim 24 has been similarly amended to include the limitations of allowable dependent claim 32 and independent claim 36 amended to include the limitations of allowable dependent claim 40 and intervening dependent claim 39. Accordingly, claims 1-8, 10-12, 24-31, 33-35, 36-38 and 41 should now be allowable.

Independent claim 13 is amended herein to essentially include the same feature which renders claim 1 allowable. That is, claim 13 now recites that requesting a reverse link rate increase or decrease is based on, in each rate control period, determining a data rate needed substantially to meet targeted queuing delays in the next rate control period for each service instance being supported by the mobile station. Independent claim 20 has been similarly amended. Accordingly, claims 13-19 and 20-23 should also now be allowable.

With regard to the §112, second paragraph claim rejections, the Examiner's attention is kindly directed to the third sentence of paragraph [0007] of the original application which explicitly states that a transceiver may request or otherwise initiate a rate increase if the current queue size and current average throughput are such that length of time to empty the queue likely will violate a delay constraint. Paragraph [0016] of the original application explains in

more detail how a mobile station can monitor its transmit buffer size, i.e., its transmit data queue(s), and keep track of its average reverse link throughput. Paragraph [0016] further explains that by maintaining a running average or other periodically updated estimate of its reverse link throughput, the mobile station can estimate how long given data will remain in its transmit queue, or how long it will take to drain data that already is queued. As such, the mobile station can “generate link rate change requests based on the average throughput, the queue size(s), and the targeted queuing delays” as explicitly described in paragraph [0016]. Thus, according to paragraph [0016], the mobile station can generate rate change requests based on determining expected reverse link queuing delays and evaluating those expected delays relative to one or more service constraints. The original application clearly provides adequate support for the claim feature of “determining whether targeted queuing delay violations are expected given the transmit data queue sizes and the ongoing reverse link throughput.” Accordingly, Applicant respectfully requests withdrawal of the corresponding §112 rejections.

With regard to the §112, second paragraph rejection of claims 42-44, the plain and ordinary meaning of the term “standard” is “an established norm or requirement.” See the definition of “standard” at dictionary.com and wikipedia.com. It logically then follows that the term “non-standard” means “not an established norm or requirement.” Thus, according to claims 42-44, non-standard rate requests (i.e. requests for rates which are not established norms or requirements) are granted by mapping each non-standard rate request into a standard set of rates (i.e. a set of established or required rates) based on selecting one or more combinations of the standard rates. There is nothing indefinite about these claims. Accordingly, Applicant respectfully requests withdrawal of the corresponding §112 rejections.

With regard to the §112, first paragraph claim rejections, the Examiner is kindly reminded that original claims are considered part of the application and can be relied on to satisfy the written description and enablement requirements. Each of the claim limitations

identified by the Examiner were included in the application as originally filed, and thus can be relied on to satisfy the written description and enablement requirements. In addition, the Examiner's attention is kindly directed to paragraph [0023] of the original application, particularly the last two sentences, with regard to the §112, first paragraph rejections of claims 20-23. This section of the application adequately explains how an overall data rate required to achieve targeted queuing delays for the service instances can be periodically calculated. Accordingly, Applicant respectfully requests withdrawal of the corresponding §112 rejections.

With regard to the §112, first paragraph rejection of claim 42, the Examiner's attention is kindly directed to paragraph [0021] and Figure 4 of the original application which describe a radio base station that includes receive/transmit antenna elements 50, pooled receiver circuits 52 and associated reverse link processing circuits 54, pooled transmitter circuits 56 and associated forward link processing circuits 58, and interface and control circuits 60, including a rate/scheduling control circuit 62. This section of the application adequately explains the transmitter circuit feature of claim 42. Accordingly, Applicant respectfully requests withdrawal of the corresponding §112 rejection.

With regard to the §112, first paragraph rejection of claims 43-44, the Examiner's attention is kindly directed to paragraphs [0025]-[30] and Figure 6 of the original application. This portion of the application adequately explains the mapping features of claims 43-44. Accordingly, Applicant respectfully requests withdrawal of the corresponding §112 rejections.

Also, it is argued on p. 6 of the Office Action that claim 42 is directed to non-statutory subject matter. Particularly, the Examiner argues that claim 42 is non-statutory because it claims a signal. Applicant respectfully disagrees. Claim 42 does not claim a signal. Rather, claim 42 is directed to a base station which comprises transmitter circuits, receiver circuits and processing circuits. The transmitter circuits transmit signals to a plurality of mobile stations and the receiver circuits receive signals from a plurality of mobile stations according to claim 42.

Thus, claim 42 clearly claims the transmitter, receiver and processing circuits and not the signals themselves. To find otherwise is illogical and would prevent any applicant from ever claiming any type of transmitter and receiver circuit since all transmitter and receiver circuits process signals to some degree.

Conclusion

Applicant respectfully submits that all pending claims are patentable over the cited references in view of the remarks and amendments made herein. Action to such affect is respectfully requested. The Examiner is encouraged to contact Applicants' attorney at (919)-854-1844 if any outstanding matters can be readily addressed by a phone call.

Respectfully submitted,
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